

[0106] Trigger the report as point/port3 falls out of the window after applying the hysteresis, and report points/ports 1.

[0107] According to certain embodiments of the present invention it is achieved that the proposed triggers and reports are adapted to the particular needs when managing CoMP measurement set in simple and more efficient manner. Specifically, compared with having an absolute threshold, it is ensured that the base station such as an eNB always has track on the best point/port and the points/ports with quality within a certain range compared to the best point/port. This can guarantee to always have a precious window to decide the measurement set even when the strongest TP changed. Further, when another TP in the measurement set becomes the strongest TP which frequently happens for CoMP UE, it does not trigger RSRP report. Moreover, the possibility to decouple RSRP/RSRQ reporting and CSI measurement configuration insures flexibility to configure CSI-RS resources across multiple transmission points.

[0108] As indicated above, certain embodiments of the present invention include radio frequency cellular chipset(s) and equipment such as according to LTE/LTE Advanced and/or WCDMA, but are not limited thereto.

[0109] According to the above description, it should thus be apparent that exemplary embodiments of the present invention provide, for example from the perspective of a terminal handset and/or a base station such as but not limited to an eNB, a communication device or a component thereof, an apparatus embodying the same, a method for controlling and/or operating the same, and computer program(s) controlling and/or operating the same as well as mediums carrying such computer program(s) and forming computer program product(s).

[0110] For example, described above are apparatuses, methods and computer program products capable of received signal quality measurement management triggering and reporting in wireless communication.

[0111] Implementations of any of the above described blocks, apparatuses, systems, techniques or methods include, as non limiting examples, implementations as hardware, software, for example in connection with a digital signal processor, an instruction set, firmware, special purpose circuits or application logic, general purpose hardware or controller or other computing devices, or some combination thereof. Software or application logic or an instruction set may be maintained on any one of various conventionally available computer readable media (which shall be understood as anything which can contain, store, communicate, propagate or transport instructions in connection with an instruction execution system). Further, it is to be understood that where reference is made to a processor, such processor is to be understood in its broadest sense and may, for example, additionally comprise or not comprise a memory (e.g., ROM, CD-ROM, etc.), and it may comprise a computer processor, an application specific integrated circuit (ASIC), a field-programmable gate array (FPGA), and/or other hardware components that have been programmed in such a way to carry out the described function.

[0112] Further, as used in this application, the term circuitry refers to all of the following: hardware-only circuit implementation (such as implementations in only analog and/or digital circuitry) and to combinations of circuits and software and/or firmware.

[0113] If desired, the different functions discussed herein may be performed in a different order and/or concurrently with each other. Furthermore, if desired, one or more of the above described functions may be optional or may be combined.

[0114] Although various aspects of the invention are set out in the appended independent claims, other aspects of the invention comprise other combinations of features from the described embodiments and/or the dependent claims with the features of the independent claims, and not solely the combinations explicitly set out in the claims.

[0115] What is described above is what is presently considered to be preferred embodiments of the present invention. However, as is apparent to the skilled reader, these are provided for illustrative purposes only and are in no way intended that the present invention is restricted thereto. Rather, it is the intention that all variations and modifications be included which fall within the spirit and scope of the appended claims.

1. An apparatus, comprising:

at least one processor; and

at least one memory including computer program code, the at least one memory and the computer program code configured, with the at least one processor, to cause the apparatus to perform at least the following:

define a received signal quality range including a best received signal quality as upper border, which is the best received signal quality among all received signal qualities measured in a received signal quality measurement procedure; and

process a report including a predetermined number of signal originating points providing a received signal quality at a reference location within the received signal quality range defined by the threshold determination processor.

2. The apparatus according to claim 1, wherein the predetermined number of signal originating points is an integer number N and comprises the N signal originating points providing the N best received signal qualities at the reference location within the received signal quality range, and if only an integer number M smaller than N of signal originating points provides received signal qualities at the reference location within the received signal quality range, the report includes the M signal originating points.

3. The apparatus according to claim 1, wherein said at least one memory and the computer program code are further configured, with the at least one processor, to cause the apparatus to define the received signal quality range in accordance with a received instruction.

4. The apparatus according to claim 1, wherein said at least one memory and the computer program code are further configured, with the at least one processor, to cause the apparatus to trigger the report if the signal originating points are providing a received signal quality at the reference location within the received signal quality range change.

5. The apparatus according to claim 2, wherein said at least one memory and the computer program code are further configured, with the at least one processor, to cause the apparatus to trigger the report if the N or M signal originating points change.

6. The apparatus according to claim 2, wherein said at least one memory and the computer program code are further configured, with the at least one processor, to cause the apparatus to trigger the report and to exchange a signal originating point of the N or M signal originating points included in the report, if a signal originating point not element of the N or M